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## United States Senate

COMMITTEE ON  
GOVERNMENTAL AFFAIRS  
WASHINGTON, D.C. 20510

October 14, 1980

The Honorable Morris Udall  
Chairman  
Technology Assessment Board  
Office of Technology Assessment  
United States Congress  
Washington, D.C. 20510

Dear Chairman Udall:

Over the next several years the United States is likely to face a chronic tightening of world oil markets and a high probability of supply disruptions. We have experienced two disruptions in the past six years resulting in severe shocks to our economic and social system. Our reaction to this problem has been primarily short term demand restraint, emergency allocation of petroleum products, international programs to allocate supplies and control prices, and establishment of the strategic petroleum reserve. One thing that has been lacking is any serious consideration of technologies -- through emergency supply enhancement and/or conservation measures -- that can be brought on rapidly and in large quantities to help alleviate the disruption. Although we are developing technologies to relieve chronic shortages, even these may not appear in significant quantities before 1990.

As ranking minority members of the Permanent Subcommittee on Investigations, I have asked that the Subcommittee staff look into the issue of energy security. We have already held hearings on a number of aspects of this issue, and we may have additional hearings later this year.

I would like the Office of Technology Assessment to help the Subcommittee examine the technical options that are available that may help during a supply disruption and to ease the burden imposed by chronic tight oil markets. Specifically, we would like your judgment about which supply and demand technologies can be developed quickly and whether they can contribute significantly.

We would like this analysis done in two phases. The first phase should identify these technologies and briefly discuss the principal issues raised if they were accelerated to provide additional, immediate energy

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supplies or to lower demand. In this first phase, I would like you to pay particular attention to weatherization, wood as a residential heating fuel, and alcohol as a transportation fuel. If possible, this should be done in a way to help the Subcommittee prepare for any hearings we may have on this issue.

Second, we would like a more extensive analysis of these technologies, their possible contribution, and the implications of their acceleration to meet a supply disruption or a chronic shortage. In particular: 1) What are the technical limits -- or conversely opportunities -- that are pertinent in evaluating the U.S. ability to respond to such a condition? 2) Are there realistic unilateral and multilateral steps that might be taken in advance of a crisis? 3) How can the U.S. respond to the steep oil price increases that would occur during the severe tightening of the world oil market associated with disruptions? 4) What are the longer-term, post-shortage implications of rapidly accelerating a supply technology, such as ethanol production, to meet an emergency shortage of oil? 5) Are there any other issues that you feel are important should be brought to the attention of the Subcommittee?

We understand that OTA is fully committed to other major energy projects until next January. However, if the Technology Assessment Board approves this project, we would very much appreciate whatever can be done in the next few months to identify the issues, and to begin the longer analysis as soon as OTA's resources permit.

I appreciate your consideration of our request. If you or your staff have any questions or comments about this matter, please call Bill Strauss, Special Energy Counsel to the Minority, Permanent Subcommittee on Investigations, at 224-3586.

Sincerely,



Charles H. Percy  
United States Senator

CHP:arj

cc: Sam Nunn, Chairman  
Permanent Subcommittee on Investigations

John Gibbons, Director  
Office of Technology Assessment